

**Attachment B**

(complete set of the claims as amended)

2. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, further comprising the steps of:

(g) evolving the patient to a predetermined health state responsive to the at least one intervention, the genetic information and the patient history to at least one subsequent health state; and

(h) evaluating the user responsive to the at least one intervention input by the user, the at least one subsequent health state, and the predetermined criteria.

E1  
A2  
3. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, further comprising the steps of:

(g) evolving the patient to a predetermined health state responsive to the at least one intervention, the genetic information and the patient history to at least one subsequent health state; and

(h) receiving at least one other intervention input by the user; and

(i) evaluating the user responsive to at least one of the at least one intervention input by the user, the at least one other intervention input by the user, the at least one subsequent health state, and the predetermined criteria.

4. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, further comprising the steps of:

(g) evolving the patient to a predetermined health state responsive to the at least one intervention, the genetic information and the patient history to at least one subsequent health state;

(h) receiving at least one other intervention input by the user;

(i) evolving the patient responsive to the at least one intervention, the genetic information and the patient history to at least one other subsequent health state; and

E1  
C2  
Cont 4

(j) evaluating the user responsive to at least one of the at least one intervention input by the user, the at least one subsequent health state, the at least one other subsequent health state, and the predetermined criteria.

5. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, wherein said generating step (d) further comprises the step of generating the patient history responsive to the test area, the genetic information, and an entity relationship model.

E1  
C3

23. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, wherein said generating patient history step (d) is executed once for each simulation to generate the patient history used in said computer implemented simulation and evaluation method.

25. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, wherein said generating step (d) generates the patient history comprising a progression of health states and risk factors traversed by the patient from a normal health condition to a specified health condition.

E1  
C4

26. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, wherein said generating step (d) iteratively generates the patient history backwards in time from a specified health condition to a normal health condition including successive precursor health states and onset times therebetween.

27. (Amended Once) A computer implemented simulation and evaluation method according to claim 40, wherein said generating step (d) generates the patient history using a Monte Carlo process to multiple stochastic trees to generate a plurality of potential patient histories to be used in said computer implemented simulation and evaluation method.

37. (Amended Once) A computer simulation and evaluation system for simulating interventions including active and passive intervention to a patient having a health state by a user, and for evaluating the interventions responsive to predetermined criteria and the interventions, comprising:

a knowledge database storing patient health characteristics including at least one of population, record, agents of change, health states, findings and courses of action;

a presentation system providing access to the computer simulation and evaluation system by the user; and

a patient simulation system adapted to be connectable to said presentation system and said knowledge database, said patient simulation system performing the functions:

- (a) accessing a profile for said user;
- (b) defining a test area in response to said profile and selecting genetic information of the patient responsive to the test area and the knowledge database;
- (c) generating a patient history responsive to the test area and the genetic information, wherein said patient history is selected from predetermined health states;
- (d) receiving at least one intervention input by the user; and
- (e) evaluating the user responsive to the at least one intervention input by the user and the predetermined criteria.

38. (Amended Once) A computer readable tangible medium storing instructions for implementing a process driven by a computer, the process simulating interventions initiated by a user, the interventions including active and passive interventions to a patient having a health state, and the process evaluating the interventions responsive to predetermined criteria and the interventions, the instructions comprising the steps of:

- (a) accessing the computer implemented simulation and evaluation method by the user;
- (b) accessing a profile for said user;
- (c) defining a test area to evaluate the user by the computer implemented simulation and evaluation method responsive to at least one of predetermined criteria and a user profile;

- (d) selecting genetic information of the patient responsive to the test area;
- (e) generating a predetermined patient history responsive to the test area and the genetic information;
- (f) receiving at least one intervention input by the user; and
- (g) evaluating the user responsive to the at least one intervention input by the user and the predetermined criteria.

39. (Amended Once) A computer implemented simulation and evaluation method simulates interventions to a patient by a user, and evaluates the interventions responsive to predetermined criteria and the intervention, said method comprising the steps of accessing a profile for said user, defining a test area to evaluate the user responsive to at least one of predetermined criteria and a user profile, selecting genetic information of the patient responsive to the test area, generating a predetermined patient history responsive to the test area and the genetic information, receiving at least one intervention input by the user, and evaluating the user responsive to the at least one intervention and the predetermined criteria.

40. (New) A computer implemented simulation and evaluation method for testing a user's problem solving abilities in response to a complex system, such as a patient having at least one health state, such method comprising the steps of:

- (a) accessing a profile for said user;
- (b) selecting a testing area to evaluate said user on at least one predetermined criterion responsive to said profile;
- (c) selecting genetic information of a patient responsive to said testing area;
- (d) generating a patient history responsive to testing area and said genetic information, wherein said patient history comprises a predetermined set of health states;
- (e) receiving at least one intervention input by user, wherein said at least one intervention includes passive and active interventions; and
- (f) evaluating said user responsive to said at least one predetermined criteria and said at least one intervention.

41. (New) A computer implemented simulation and evaluation method for testing a user's problem solving abilities in response to a complex system, such as a patient having at least one predetermined health state, such method comprising the steps of:

- (a) generating an initial patient history state, wherein said initial patient history state comprises a predetermined set of health states;
- (b) evolving the initial patient history state to a predetermined subsequent patient history health state;
- (c) receiving at least one intervention input by said user, wherein said at least one intervention includes passive and active interventions; and
- (d) evaluating said user responsive to said at least one intervention.

42. (New) The method according to claim 41, wherein evolving the initial patient history state to said predetermined subsequent patient history state occurs over a finite stochastically determined time period.

43. (New) The method according to claim 41, further comprising the step of repeating said evolving step and receiving step a plurality of times.

44. (New) A computer implemented method for training a user regarding the operation of a complex system, such as a patient having at least one predetermined health state, such method comprising the steps of:

- (a) generating an initial patient history state, wherein said initial patient history state comprises a predetermined set of health states; and
- (b) iterating through a prescribed treatment protocol with said user, wherein said iterating step comprises evolving, through at least one intermediate health state, the initial patient history state to a predetermined subsequent patient history health state.

45. (New) A computer implemented method for simulating a complex system, such as a patient having at least one predetermined health state such method comprising the steps of:

- (a) generating an initial patient history state, wherein said initial patient history state comprises a predetermined set of health states;
- (b) evolving, through at least one intermediate health state, the initial patient history state to a predetermined subsequent patient history health state; and
- (c) observing a full fidelity model of a patient having at least one predetermined health state so as to extract user inputs and patient responses at each said evolving step.

46. (New) A computer implemented simulation and evaluation method for testing a user's problem solving abilities in response to a complex system, such as a group of patients, wherein each patient in said group has at least one health state, such method comprises the steps of:

- (a) generating multiple instances of patients representing a clinical scenario, wherein each of said patients have an initial patient history state comprising a predetermined set of health states;
- (b) evolving at least one of each of said patients' initial patient history state to a predetermined subsequent patient history health state;
- (c) receiving at least one intervention input by said user, wherein said at least one intervention includes passive and active interventions; and
- (d) evaluating said user responsive to said at least one intervention.